UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,284	04/02/2001	Tetsujiro Kondo	450100-03145	9275

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EXAMINER
JOHNSON, TIMOTHY M

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
● **Office Action Summary** ●	09/824,284	KONDO ET AL.
	Examiner	Art Unit
	Timothy M Johnson	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
  THE MAILING DATE OF THIS COMMUNICATION.
  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
    after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
    Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
    earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-33_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-3,5,12-14,16-20 and 28-33_ is/are rejected.

7)☒ Claim(s) _4,6-11,15 and 21-27_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim for Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119 (a)-(d), which

papers have been placed of record in the file.

Disclosure

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

The Examiner suggests the following title:

"Image Compression and Decompression with Predictor Selection based on

Embedding Data".

Claim Objections

3.   Claims 1-17 are objected to because of the following informalities:

For claim 1, lines 1-6, it is not clear whether the first or second data is being

embedded. The preamble recites "embedding first data in second data", but then

indicates that the data of interest is "in said first data". As shown in Fig. 3, the pixel of

interest is in the image, which is not the added information to be embedded. Thus, it

appears that there is inconsistency with respect to which data is being embedded. The

examiner suggests changing the preamble to recite "embedding second data in first

data", as it is recited in the preamble in claims 18, 32, and 33. Claims 16-17 are

analyzed similarly.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-3, 5, 12-14, 16-20, and 28-33 are rejected under 35 U.S.C. § 102(b) as being anticipated by Morimoto et al., 6,005,643.

For claim 1, an embedded coding apparatus for embedding first data in second data, and outputting coded data is provided by Morimoto in at least the abstract. Selecting means for selecting a predicting method for predicting data of interest in the first data, based on the second data; predicting means for obtaining a prediction value corresponding to the data of interest based on the prediction method selected by the selecting means; and prediction margin of error computing means for computing the prediction margin of error based on the data of interest and the prediction value, and outputting as the coded data is provided by Morimoto in at least c. 5, line 63 – c. 6, line 30, and the paragraph bridging cols. 6-7, where a predicted value corresponds to a prediction type, i.e. the prediction error is made from the prediction values, although Morimoto does not term them as prediction values, that is what they are, and properly construed as herein. The prediction values correspond to the data of interest and the data of interest based on the prediction method as shown in at least Figs. 1a-1b, and as noted in at least the third full paragraph in c. 6 to the second full paragraph in c. 7, and

c. 5, line 63 – c. 6, line 30, and see also the paragraph bridging cols. 11-12, where the

prediction method dictates which prediction method, values, and prediction error that is

used for outputting the coded data.

For claim 2, since at least for the reason that Morimoto is seeking the data with

minimum prediction error or according to the most similar region for the data of interest

within the first data for a prediction, the data for producing the prediction value is clearly

"nearby" as claimed.

For claim 3, see the rejection of at least claim 1 for providing for judging means

for judging whether or not said second data can be embedded as to said data of

interest; wherein, in the event that said judging means has judged that said second data

can be embedded as to said data of interest, said selecting means makes selection of

said prediction method based on said second data is provided by Morimoto where cited

above. Simply, Morimoto determine if data can be embedded, and selects a specific

prediction method depending on whether or not data can be embedded.

For claim 5, see the rejection of at least claim 1. Wherein said judging means

judges whether or not said second data can be embedded as to said data of interest,

based on said data of interest and said first data used for prediction of said data of

interest is provided by Morimoto where cited above, by clearly determining the data of

interest for where the embedded data will be and determining if it can be embedded,

and other first data is clearly used in the process of prediction, since that is clearly

required to ascertain the prediction error as taught by Morimoto.

For claim 12, wherein the first data is image data is provided by Morimoto by

explicitly reference to video and pixel data where cited above.

For claim 13, wherein the first data and the second data is one part and the other

part of the image data separated into two is provided by Morimoto where cited above,

where the first and second data are embedded as one, and other parts of the image are

separated in terms of pixels and macroblocks for example.

For claim 14, separating the image into two parts, for embedding the second data

as the other part as to the first data as the one part is provided by Morimoto where cited

above, where the image data is clearly separated into a plurality of parts including pixels

and macroblocks for example, and the embedded data as the other part is embedded

into the first data as one part.

For claim 16, see the rejection of at least claim 1.

For claim 17, see the rejection of at least claim 1, and the second and third full

paragraphs in c. 4 of Morimoto for a computer program.

For claim 18, see the rejection of at least claim 1 for a corresponding coder of the prediction values and embedded second data. Furthermore, recognizing a prediction method for predicting a prediction value corresponding to the first data, from data of interest in the coded data; and decoding the data of interest into the original first data, and also decoding the second data based on the prediction method recognized by the recognizing means is provided by Morimoto in at least the first full paragraph in c. 4 and section 2 in cols. 7-8, the last full paragraph in c. 12, and the first full paragraph in c. 13, where it is clear that both the first and second data are decoded and restored to their original form prior to coding.

For claim 19, judging whether or not the second data is embedded as to the data of interest; wherein in the event that the judging means judges that the second data is embedded as to the data of interest, the second data is decoded based on the prediction method is provided by Morimoto where cited above, where it is clear that the second data is decoded based on the prediction method – the basic premise of Morimoto.

For claim 20, wherein the judging means judges whether or not the second data is embedded as to the data of interest, based on the data of interest and the first data already decoded is provided by Morimoto, because the embedded data is part of the coded data, and therefore must be decoded before the data of interest and the embedded data can be determined.

For claim 28, see the rejection of at least claim 12 for image data, which is explicitly provided by Morimoto.

For claim 29, wherein the first data and the second data is one part and the other part of the image data separated into two is provided by Morimoto where cited above, where the first and second data are embedded as one, and other parts of the image are separated in terms of pixels and macroblocks for example.

For claim 30, joining means for joining said decoded first data as said one part and said decoded second data as said other part, to configure the original said image is provided by Morimoto by decoding and extracting with the resulting embedded second data being joined with the first data after decoding and extracting, e.g. Fig. 3, and where cited above.

For claim 31, see the rejection of at least claims 1 and 30, wherein in the event that said second data is compressed and embedded in said first data, said decoding means decodes said compressed second data; and further wherein decoding apparatus comprises expanding means for expanding said compressed second data back into second data, said joining means joining said decoded first data and said second expanded data to configure the original said image.

For claim 32, see the rejection of at least claim 18.

For claim 33, see the rejection of at least claim 18, and the second and third full paragraphs in c. 4 of Morimoto for a computer program.

Allowable Subject Matter

6.   Claims 4, 6-11, 15, and 21-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M Johnson whose telephone number is 703-306-3096. The examiner can normally be reached on Monday – Friday from 5:30 to 2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta, can be reached on Monday – Friday from 9:30 to 5:00. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Timothy M. Johnson
Patent Examiner
Art Unit 2625
February 29, 2004

TIMOTHY M. JOHNSON
PRIMARY EXAMINER